

Our Ref. No.: 042390.P12921

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:								
Alankar Saxena, et al.								
Serial No. 10/033,439								
Filing Date: December 28, 2001	)							
For: DUAL MEMORY CHANNEL INTERLEAVING FOR GRAPHICS AND MPEG	) 							

#### **SUBMISSION OF FORMAL DRAWINGS**

Hon. Commissioner of Patents and Trademarks Washington, D.C. 20231

Dear Sir:

Submitted herewith are formal drawings, Figures 1-14.

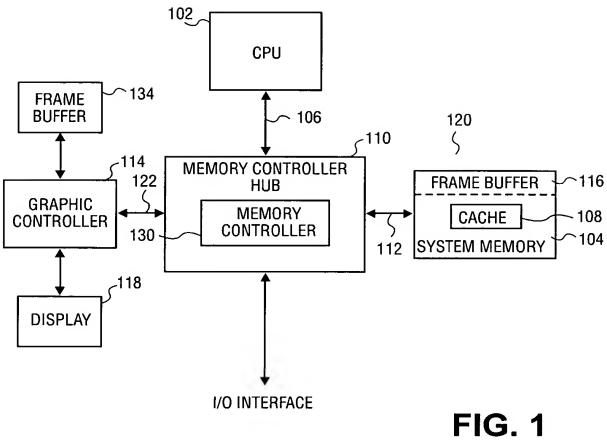
Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN

Dated: 4/29/6

Eric S. Hyman, Reg, No. 30,139

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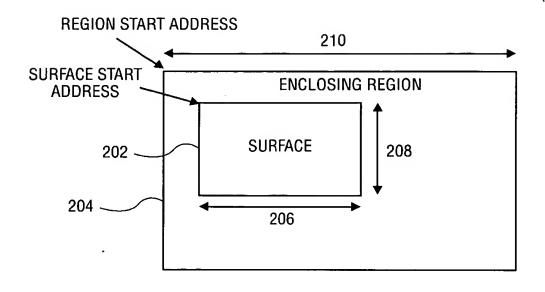
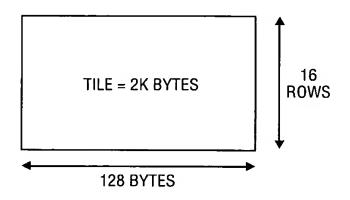


FIG. 2A



212

<u>200</u>

FIG. 2B

Ī	QW 15	0W 31		§ S
	QW 14	QW 30	·	S S
	QW 13	QW 29		Ø8
	QW 12	QW 28		88
ŧ	aw 11	QW 27		NO.
16 QWORD COLUMNS	.0W 10	QW 26		ON S
	QW 9	QW 25		88 88
	QW 8	QW 24		MO S
	QW 7	QW 23	•	0 0 0 0
16 UWC	QW 6	QW 22	•	NO.
	aw 5	ΩW 21		OW 245
	QW 4	QW 20		<u>8</u> 8
	aw 3	αW 19		OW 243
	QW 2	0W 18		88
	QW 1	QW 17		2 K
	≫°0	0W 16		§8
•	<b>←</b>		16 ROWS	<u> </u>

FIG. 3

3

	QW 240	QW 241	QW 242	QW 243	QW 244	QW 245	QW 246	QW 247	QW 248	QW 249	QW 250	QW 251	QW 252	QW 253	QW 254	QW 255
OLUMNS																
16 QWORD COLUMNS							•									
	QW 16	QW 17	QW 18	QW 19	QW 20	QW 21	QW 22	QW 23	QW 24	QW 25	QW 26	QW 27	QW 28	QW 29	QW 30	QW 31
	QW 0	QW 1	QW 2	QW 3	QW 4	QW 5	QW 6	QW 7	QW 8	QW 9	QW 10	QW 11	QW 12	QW 13	QW 14	QW 15

16 ROWS

Щ

400

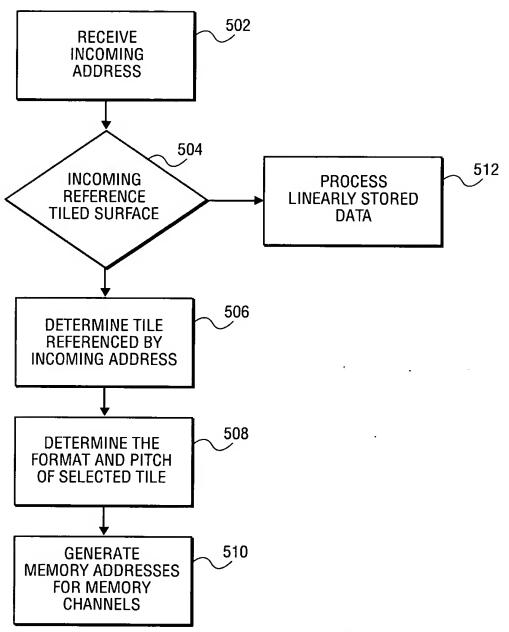


FIG. 5

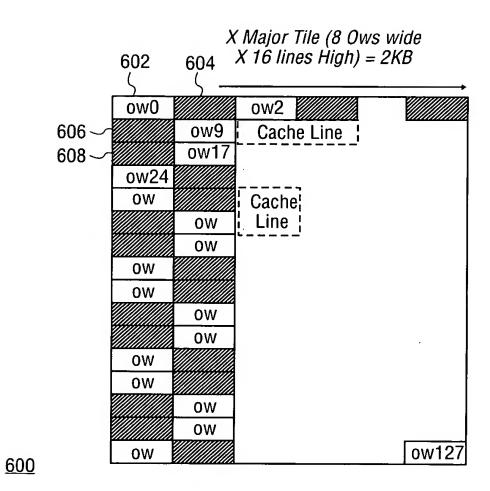
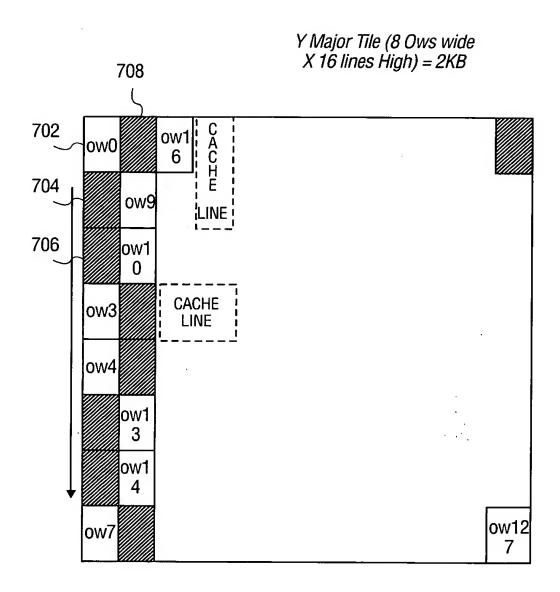


FIG. 6



<u>700</u>

**FIG. 7** 

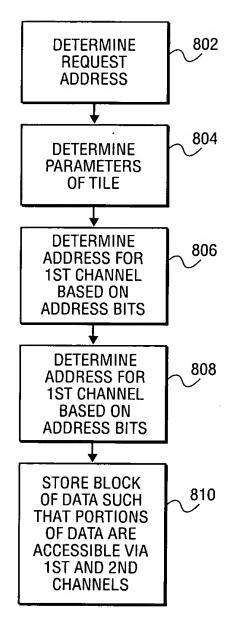


FIG. 8

### Request Address (31:5) = Translated Tiled Address (31:5)

```
If (Tiled Addr [8] == '0' AND Tiled Addr [7] == '0') OR
(Tiled Addr [8] == '1' AND Tiled Addr [7] == '1'):
Channel 0: Request Address

Channel 1: Request Address + 16B

If (Tiled Addr [8] == '0' AND Tiled Addr [7] == '1') OR
(Tiled Addr [8] == '1' AND Tiled Addr[7] == '1'):
Channel 0: Request Address + 16B

Channel 1: Request Address
```

## FIG. 9

```
Request Address (31:5) = Translated Tiled Address (31:5)
```

```
If (Tiled Addr [4] == '0' AND Tiled Addr [8] == '0') OR
(Tiled Addr [4] == '1' AND Tiled Addr [7] == '1'):
Channel 0: Request Address
Channel 1: Request Address + 128B

If (Tiled Addr [4] == '0' AND Tiled Addr [7] == '1') OR
(Tiled Addr [4] == '1' AND Tiled Addr[7] == '1'):
Channel 0: Request Address + 128B
Channel 1: Request Address
```

**FIG. 10** 

```
Request Address (31:5) = Translated Tiled Address (31:5)

If (Tiled Addr [4] == '0' AND Tiled Addr [7] == '0') OR

(Tiled Addr [4] == '1' AND Tiled Addr [7] == '1'):

Channel 0: Request Address

Channel 1: Request Address + 256B

If (Tiled Addr [4] == '0' AND Tiled Addr [7] == '1') OR

(Tiled Addr [4] == '1' AND Tiled Addr [7] == '0'):

Channel 0: Request Address + 256B

Channel 1: Request Address
```

## **FIG. 11**

```
If (Tiled Addr [5] == '0' AND Tiled Addr [4] == '0') OR
  (Tiled Addr [5] == '1' AND Tiled Addr [4] == '1'):
Channel 0:
              Request Address,
      Qword (Tiled Addr [3]) = Qword 0 of Source
      Qword (Tiled Addr [3]) = Not Used/Updated.
              Request Address +128B,
Channel 1:
      Qword (Tiled Addr [3]) = Qword 1 of Source
      Qword (Tiled Addr [3]) = Not Used/Updated.
If (Tiled Addr [5] == '0' AND Tiled Addr [4] =='0') OR
  (Tiled Addr [5] == '1' AND Tiled Addr [4] == '1'):
Channel 0:
              Request Address + 128B,
      Qword (Tiled Addr [3]) = Qword 1 of Source
      Qword (Tiled Addr [3]) = Not Used/Updated.
Channel 1:
              Request Address.
      Qword (Tiled Addr [3]) = Qword 0 of Source
      Qword (Tiled Addr [3]) = Not Used/Updated.
```

Request Address (31:5) = Translated Tiled Address (31:5)

**FIG. 12** 

### Request Address (31:5) = Translated Tiled Address (31:5)

```
If (Tiled Addr [5] == '0' AND Tiled Addr [4] == '0') OR
(Tiled Addr [5] == '1' AND Tiled Addr [4] == '1'):

Channel 0: Request Address
Channel 1: Request Address + 128B

If (Tiled Addr [5] == '0' AND Tiled Addr [4] == '1') OR
(Tiled Addr [5] == '1' AND Tiled Addr [4] == '0'):

Channel 0: Request Address + 128B
Channel 1: Request Address
```

# **FIG. 13**

```
Request Address (31:5) = Translated Tiled Address (31:5)

If (Tiled Addr [7] == '0' AND Tiled Addr [5] == '0') OR (Tiled Addr [7] == '1' AND Tiled Addr [5] == '1'):

Channel 0: Request Address
Channel 1: Request Address + 16B

If (Tiled Addr [7] == '0' AND Tiled Addr [5] == '1') OR (Tiled Addr [7] == '1' AND Tiled Addr[5] == '0'):

Channel 0: Request Address + 16B
Channel 1: Request Address
```

**FIG. 14**